ORIGINAL

LERMAN SENTER PLLC

WASHINGTON, DC

SALLY A. BUCKMAN
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August 12, 2019

VIA HAND DELIVERY

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Application for Direct Measurement (FCC Form 302-AM); WWNN (AM), Pompano Beach, FL (Facility ID No. 73930)

Dear Ms. Dortch:

On behalf of Beasley Media Group Licenses, LLC, licensee of the above-referenced AM broadcast station, I am transmitting herewith an original and two copies of an application on FCC Form 302-AM for direct measurement of power.

Because this is an application for direct measurement, no application filing fee is being submitted with this application.

Please date-stamp the enclosed "Return Copy" of this filing and return it to the courier delivering this package.

If you have any questions, please contact me.

Respectfully submitted,

Sally A Buckman /KW

Sally A. Buckman
Counsel to Beasley Media Group Licenses, LLC

Enclosure

0004077426

6364483

ORIGINAL

Accepted / Filed

AUG 12 2019

Federal Communications Commission
Office of the Secretary

Federal Communications Commission
Washington, D. C. 20554

Approved by OMB
3060-0627
Expires 01/31/98

FOR FCC USE ONLY

FCC 302-AM
APPLICATION FOR AM BROADCAST STATION LICENSE

(Please read instructions before filling out form.

FOR COMMISSION USE ONLY
FILE NO. BZ-20190812ABJ

SECTION I - APPLICANT FEE INFORMATION

1. PAYOR NAME (Last, First, Middle Initial)

BEASLEY MEDIA GROUP LICENSES, LLC

MAILING ADDRESS (Line 1) (Maximum 35 characters)
3033 RIVIERA DRIVE

MAILING ADDRESS (Line 2) (Maximum 35 characters)
SUITE 200

CITY	STATE OR COUNTRY (if foreign address)	ZIP CODE
NAPLES	FL	34103

TELEPHONE NUMBER (include area code)	CALL LETTERS	OTHER FCC IDENTIFIER (If applicable)
239-263-5000	WWNN	73930

2. A. Is a fee submitted with this application? ☐ Yes ☑ No

B. If No, indicate reason for fee exemption (see 47 C.F.R. Section

☐ Governmental Entity ☐ Noncommercial educational licensee ☑ Other (Please explain):

C. If Yes, provide the following information: Limited Liability Company

Enter in Column (A) the correct Fee Type Code for the service you are applying for. Fee Type Codes may be found in the "Mass Media Services Fee Filing Guide." Column (B) lists the Fee Multiple applicable for this application. Enter fee amount due in Column (C).

(A) FEE TYPE CODE	(B) FEE MULTIPLE	(C) FEE DUE FOR FEE TYPE CODE IN COLUMN (A)	FOR FCC USE ONLY
	0001	$	

To be used only when you are requesting concurrent actions which result in a requirement to list more than one Fee Type Code.

(A)	(B)	(C)	FOR FCC USE ONLY
	0001	$	

ADD ALL AMOUNTS SHOWN IN COLUMN C, AND ENTER THE TOTAL HERE. THIS AMOUNT SHOULD EQUAL YOUR ENCLOSED REMITTANCE.	TOTAL AMOUNT REMITTED WITH THIS APPLICATION	FOR FCC USE ONLY
	$	

SECTION II - APPLICANT INFORMATION		
1. NAME OF APPLICANT BEASLEY MEDIA GROUP LICENSES, LLC		
MAILING ADDRESS 3033 RIVIERA DRIVE		
CITY NAPLES	STATE FL	ZIP CODE 34103

2. This application is for:

☑ Commercial ☐ Noncommercial

☑ AM Directional ☐ AM Non-Directional

Call letters	Community of License	Construction Permit File No.	Modification of Construction Permit File No(s).	Expiration Date of Last Construction Permit
WWNN	73930			

3. Is the station now operating pursuant to automatic program test authority in accordance with 47 C.F.R. Section 73.1620?

☐ Yes ☐ No

If No, explain in an Exhibit.

Exhibit No.

4. Have all the terms, conditions, and obligations set forth in the above described construction permit been fully met?

☐ Yes ☐ No

If No, state exceptions in an Exhibit.

Exhibit No.

5. Apart from the changes already reported, has any cause or circumstance arisen since the grant of the underlying construction permit which would result in any statement or representation contained in the construction permit application to be now incorrect?

☐ Yes ☐ No

If Yes, explain in an Exhibit.

Exhibit No.

6. Has the permittee filed its Ownership Report (FCC Form 323) or ownership certification in accordance with 47 C.F.R. Section 73.3615(b)?

☑ Yes ☐ No

☐ Does not apply

If No, explain in an Exhibit.

Exhibit No.

7. Has an adverse finding been made or an adverse final action been taken by any court or administrative body with respect to the applicant or parties to the application in a civil or criminal proceeding, brought under the provisions of any law relating to the following: any felony; mass media related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?

☐ Yes ☑ No

If the answer is Yes, attach as an Exhibit a full disclosure of the persons and matters involved, including an identification of the court or administrative body and the proceeding (by dates and file numbers), and the disposition of the litigation. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 U.S.C. Section 1.65(c), the applicant need only provide: (i) an identification of that previous submission by reference to the file number in the case of an application, the call letters of the station regarding which the application or Section 1.65 information was filed, and the date of filing; and (ii) the disposition of the previously reported matter.

Exhibit No.

8. Does the applicant, or any party to the application, have a petition on file to migrate to the expanded band (1605-1705 kHz) or a permit or license either in the existing band or expanded band that is held in combination (pursuant to the 5 year holding period allowed) with the AM facility proposed to be modified herein?

☐ Yes ☒ No

If Yes, provide particulars as an Exhibit.

Exhibit No.

The APPLICANT hereby waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because use of the same, whether by license or otherwise, and requests and authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended).

The APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations and that all the exhibits are a material part hereof and are incorporated herein as set out in full in

CERTIFICATION

1. By checking Yes, the applicant certifies, that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862, or, in the case of a non-individual applicant (e.g., corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits that includes FCC benefits pursuant to that section. For the definition of a "party" for these purposes, see 47 C.F.R. Section 1.2002(b).

☒ Yes ☐ No

2. I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Name	Signature	
CAROLINE BEASLEY	Caroline Beasley	
Title	Date	Telephone Number
CED	8-12-19	239-263-5000

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The solicitation of personal information requested in this application is authorized by the Communications Act of 1934, as amended. The Commission will use the information provided in this form to determine whether grant of the application is in the public interest. In reaching that determination, or for law enforcement purposes, it may become necessary to refer personal information contained in this form to another government agency. In addition, all information provided in this form will be available for public inspection. If information requested on the form is not provided, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Your response is required to obtain the requested authorization.

Public reporting burden for this collection of information is estimated to average 639 hours and 53 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, can be sent to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0627), Washington, D. C. 20554. Do NOT send completed forms to this address.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

Consulting Engineers
CTJC
CARL T. JONES CORPORATION

ENGINEERING EXHIBIT
IN SUPPORT OF AN APPLICATION
FOR DIRECT MEASUREMENT OF POWER
STATION WWNN - POMPANO BEACH, FLORIDA
1470 kHz – 50 kW-D, 2.5 kW-N, U, DA-2
FACILITY ID: 73930

Applicant: Beasley Media Group Licenses, LLC

AUGUST, 2019

7901 Yarnwood Court
Springfield, VA 22153-2899

tel: (703) 569-7704
fax: (703) 569-6417

email: info@ctjc.com
www.ctjc.com

TABLE OF CONTENTS

SECTION III OF FCC FORM 302-AM

ENGINEERING STATEMENT OF JAMES D. SADLER

FIGURE

SECTION III - LICENSE APPLICATION ENGINEERING DATA

Name of Applicant
Beasley Media Group Licenses, LLC

PURPOSE OF AUTHORIZATION APPLIED FOR: (check one)

☐ Station License ☑ Direct Measurement of Power

1. Facilities authorized in construction permit

Call Sign	File No. of Construction Permit (if applicable)	Frequency (kHz)	Hours of Operation	Power in kilowatts	
				Night	Day
WWNN	N/A	1470	Unlimited	2.5	50

2. Station location

State	City or Town
Florida	Pompano Beach

3. Transmitter location

State	County	City or Town	Street address (or other identification)
FL	Broward	Tamarac	4431 Rock Island Rd

4. Main studio location

State	County	City or Town	Street address (or other identification)
FL	Broward	Boca Raton	1650 South Dixie Highway

5. Remote control point location (specify only if authorized directional antenna)

State	County	City or Town	Street address (or other identification)
FL	Broward	Boca Raton	1650 South Dixie Highway

6. Has type-approved stereo generating equipment been installed? ☐ Yes ☑ No

7. Does the sampling system meet the requirements of 47 C.F.R. Section 73.68? ☑ Yes ☐ No ☐ Not Applicable

Attach as an Exhibit a detailed description of the sampling system as installed. Exhibit No. On File

8. Operating constants:

RF common point or antenna current (in amperes) without modulation for night system	RF common point or antenna current (in amperes) without modulation for day system
7.35	32.45

Measured antenna or common point resistance (in ohms) at operating frequency		Measured antenna or common point reactance (in ohms) at operating frequency	
Night	Day	Night	Day
50	50	-j5	-j5

Antenna indications for directional operation

Towers	Antenna monitor Phase reading(s) in degrees		Antenna monitor sample current ratio(s)		Antenna base currents	
	Night	Day	Night	Day	Night	Day
1(NE)	-139.8	-109.0	0.910	0.575	------	------
2(EC)	0.0	0.0	1.000	1.000	------	------
3(SE)	+124.0	+127.5	0.268	0.295	------	------
4(NW)	+35.8	------	0.987	------	------	------
5(WC)	+169.9	+82.0	0.974	0.147	------	------
6(SW)	-87.8	------	0.138	------	------	------

Manufacturer and type of antenna monitor: Potomac Instruments, Model 1901-6, Serial #841

SECTION III - Page 2

9. Description of antenna system ((f directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary.)

Type Radiator	Overall height in meters of radiator above base insulator, or above base, if grounded.	Overall height in meters above ground (without obstruction lighting)	Overall height in meters above ground (include obstruction lighting)	If antenna is either top loaded or sectionalized, describe fully in an Exhibit.
#1, 2, 4, 5 uniform cross-section, guyed, base insulated #3, 6 uniform cross-section, guyed, shunt fed	#1, 2, 4, 5 50.9 #3 119.5 #6 50.9	#1, 2, 4, 5 51.8 #3 121.6 #6 52.1	#1,2,4,5 51.8 #3 122.8 #6 53.3	Exhibit No. N/A

Excitation ☑ Series #1, 2, 4, 5 ☑ Shunt #3, 6

Geographic coordinates to nearest second. For directional antenna give coordinates of center of array. For single vertical radiator give tower location.

North Latitude	26 °	10 '	46 "	West Longitude	80 °	13 '	15 "

If not fully described above, attach as an Exhibit further details and dimensions including any other antenna mounted on tower and associated isolation circuits. Exhibit No. Eng Stmt

Also, if necessary for a complete description, attach as an Exhibit a sketch of the details and dimensions of ground system. Exhibit No. Eng Stmt

10. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit?

N/A

11. Give reasons for the change in antenna or common point resistance.

N/A

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Name (Please Print or Type)	Signature (check appropriate box below)
James D. Sadler	
Address (include ZIP Code) Carl T. Jones Corporation 7901 Yarnwood Court Springfield, VA 22153	Date August 9, 2019 Telephone No. (Include Area Code) (703) 569-7704

☐ Technical Director

☐ Registered Professional Engineer

☐ Chief Operator

☑ Technical Consultant

☐ Other (specify)

Consulting Engineers
CTJC
CARL T. JONES CORPORATION

STATEMENT OF JAMES D. SADLER
IN SUPPORT OF AN APPLICATION
FOR DIRECT MEASUREMENT OF POWER
STATION WWNN - POMPANO BEACH, FLORIDA
1470 kHz – 50 kW-D, 2.5 kW-N, U, DA-2
FACILITY ID: 73930

Applicant: Beasley Media Group Licenses, LLC

I am a Technical Consultant, an employee in the firm of Carl T. Jones Corporation with offices located in Springfield, VA. My education and experience are a matter of record with the Federal Communications Commission.

Introduction

This office has been authorized by Beasley Media Group Licenses, LLC (herein "Beasley"), licensee of Radio Station WWNN, Pompano Beach, Florida, to prepare this statement, Section III of FCC Form 302-AM, and the associated figures in support of and Application for Direct Measurement of Power. Radio Station WWNN operates on a frequency of 1470 kHz, on an unlimited time basis, with a daytime power of 50 kW and a nighttime power of 2.5 kW. The station utilizes different directional patterns for its daytime and nighttime operations (DA-2).

T-Mobile recently completed the modification of cellular antennas and associated equipment located on tower number 6 of the WWNN directional antenna array. Tower

7901 Yarnwood Court
Springfield, VA 22153-2899
tel: (703) 569-7704
fax: (703) 569-6417
email: info@ctjc.com
www.ctjc.com

number 6 is detuned during daytime operation and is an active radiator in the nighttime directional antenna array. Partial proof of performance measurements were performed on the daytime and nighttime directional antenna patterns before and after the T-Mobile equipment modifications.

After completion of the T-Mobile equipment modifications, it was observed that the WWNN daytime and nighttime parameters had changed. This office was authorized to perform minor adjustment of the daytime and nighttime antenna phasing and coupling system to restore the tower number 6 detuning and restore the daytime and nighttime directional antennas to the original antenna monitor values in place prior to the T-Mobile modifications. Partial proof of performance measurements showed that the daytime pattern exceeded the authorized values on one of the two daytime monitored radials. Partial proof of performance measurements performed on the five nighttime monitored radials showed that all five nighttime radials were within the authorized limits. Further adjustment of the daytime directional antenna system performed by the undersigned was required to restore the pattern to its authorized values.

Field Strength Measurements

Field strength measurements were performed along each of the two daytime monitored radial paths contained in the 1995 daytime full Proof-of-Performance, FCC File No. BL-19950901AB (herein "1995 Daytime Proof") and along each of the five nighttime monitored radial paths contained in the 1979 nighttime full Proof-of-Performance, FCC File No. BL-14228 (herein "1979 Nighttime Proof"). A minimum of 8

field strength measurements were taken at accessible locations previously established in the 1995 Daytime Proof and the 1979 Nighttime Proof, including the authorized monitoring points, at distances generally between 3 kilometers and 15 kilometers from the transmitter site. All measurements were made during the time period between two hours after local sunrise and two hours before local sunset.

All field strength measurements contained herein were made by Mr. Don Mansfield, chief engineer of Station WWNN and the undersigned. Mr. Mansfield is experienced in performing field strength measurements on directional antenna systems. A total of two field strength meters were employed to make all of the measurements contained in this document. The performance of the field intensity meters was verified in the field by comparing measured field strength values at several different full scale settings and verifying that the field strength values, as measured on each meter, agreed within the manufacturer's stated accuracy. In addition, the performance of these meters have been compared to another more recently calibrated meter and agreed within the manufactures stated accuracy. Pertinent information for each of the meters employed follows:

Manufacturer / Model	Serial No.	Calibration Date
Potomac Instruments / FIM-41	446	October, 2009
Potomac Instruments / PI-4100	188	January, 2010

The 2019 measured field strengths and the corresponding data from the 1995 Daytime Proof and the 1979 Nighttime Proof for the daytime and nighttime directional antenna patterns are tabulated in Figure 3. For each daytime and nighttime measurement location, the 2019 field strength was compared to the field strength measured at the location in the 1995 Daytime Proof and the 1979 Nighttime Proof, respectively. An arithmetic and logarithmic ratio was calculated for each location and the average ratio calculated for each radial bearing. The antilogarithm of the averages were multiplied by the daytime and nighttime directional inverse distance fields contained in the 1995 Daytime Proof and the 1979 Nighttime Proof, respectively, to yield the 2019 daytime and nighttime directional inverse distance field values.

A comparative summary of the 2019 daytime measured field strength data and the standard pattern radiation for the two measured daytime radials is contained herein as Figure 1. A comparative summary of the 2019 nighttime measured field strength data and the standard pattern radiation for the five measured nighttime radials is contained herein as Figure 2. In no case does the 2019 inverse distance field strength exceed the standard pattern value for either the daytime or nighttime directional pattern.

Monitor Point Values

Analysis of the daytime and nighttime partial proof field strength measurements indicates that the field strength associated with the 207 degree nighttime monitor point should be increased to the value shown in Figure 4. No change in the maximum field strength values of the other daytime and nighttime monitor points is warranted. Data

pertinent to the determination of the maximum field strength value at each daytime and nighttime monitor point location is contained in Figure 4.

Other Antennas Mounted on the Towers

There are multiple antennas located on tower number three, including a FM translator antenna (W245BC), cellular antennas belonging to Sprint, a UHF 2-way antenna, and 2 microwave antennas. Tower number 6 supports the cellular antennas of multiple carriers. Both towers are grounded shunt fed radiators and therefore isolation circuitry is not employed on either tower.

Summary

It is submitted that the daytime and nighttime directional patterns of Station WWNN are in proper adjustment and compliant with the station's authorization. Further, it is requested that a superseding license be issued to reflect the changes in the daytime and nighttime operating parameters and modification of the nighttime monitoring point data referenced herein.

This engineering statement, FCC Form 302-AM, Section III, and the associated figures were prepared by me or under my direct supervision and the information therein is believed to be true and correct.

Dated: August 9, 2019

James D. Sadler

Figure 1

SUMMARY OF DAYTIME MEASURED FIELD STRENGTH DATA
STATION WWNN - POMPANO BEACH, FLORIDA
1470 kHz, 50 kW-D, 2.5 kW-N, DA-2

Monitored Radial (deg. T.)	1995 DA-D Inverse Distance Field Strength (mV/m at 1 km)	2019 / 1995 Antilog of Average Ratio	DA-D Measured Inverse Distance Field Strength (mV/m at 1 km)	Daytime Standard Pattern Radiation (mV/m at 1 km)
188.5	104	0.8318	86	118
289	346	1.2999	450	613

Figure 2

SUMMARY OF NIGHTTIME MEASURED FIELD STRENGTH DATA
STATION WWNN - POMPANO BEACH, FLORIDA
1470 kHz, 50 kW-D, 2.5 kW-N, DA-2

Monitored Radial (deg. T.)	1979 DA-N Inverse Distance Field Strength (mV/m at 1 km)	2019 / 1979 Antilog of Average Ratio	DA-N Measured Inverse Distance Field Strength (mV/m at 1 km)	Nighttime Standard Pattern Radiation (mV/m at 1 km)
3	64.4	0.4401	28.3	83.8
207	48.0	1.3383	64	96.6
247	143.2	0.6807	97.5	211.7
270	178.6	0.7104	127	195.7
330	370.1	0.8083	299	403.8

TABULATION OF FIELD STRENGTH MEASUREMENT DATA
STATION WWNN - POMPANO BEACH, FLORIDA
1470 kHz, 50 kW-D, 2.5 kW-N, DA-2

3 Degrees True Radial

1979 Proof Point Number	Distance (kilometers)	1979 Proof Field Strength (mV/m)	2.5 kW, DA-N				
			Date	Time (local)	Field Strength (mV/m)	Ratio (2019/1979)	Log Ratio (2019/1979)
37	3.41	13.2	7/12/2019	1230	9.6	0.7273	-0.1383
38	3.70	10	7/12/2019	1233	4.7	0.4700	-0.3279
42 MP	4.35	10.3	7/12/2019	1237	6	0.5825	-0.2347
51	6.79	7	7/12/2019	1254	1.02	0.1457	-0.8365
54	7.77	3.5	7/12/2019	1300	2.7	0.7714	-0.1127
57	8.53	3.6	7/12/2019	1305	0.76	0.2111	-0.6755
60	10.35	2.5	7/12/2019	1343	1	0.4000	-0.3979
61	11.83	1.38	7/12/2019	1352	0.54	0.3913	-0.4075
62	12.20	1.14	7/12/2019	1354	0.67	0.5877	-0.2308
63	12.59	1.1	7/12/2019	1358	0.69	0.6273	-0.2025
					Average Ratio	0.4914	-0.3564
					Antilog of Average		0.4401

TABULATION OF FIELD STRENGTH MEASUREMENT DATA
STATION WWNN - POMPANO BEACH, FLORIDA
1470 kHz, 50 kW-D, 2.5 kW-N, DA-2

188.5 Degrees True Radial

1995 Proof Point Number	Distance (kilometers)	1995 Proof Field Strength (mV/m)	50 kW, DA-D				
			Date	Time (local)	Field Strength (mV/m)	Ratio (2019/1995)	Log Ratio (2019/1995)
18	2.95	20	7/14/2019	1144	12.5	0.6250	-0.2041
20 MP	3.43	12.5	7/14/2019	1139	9.42	0.7536	-0.1229
25	4.58	4.8	7/14/2019	1132	2.45	0.5104	-0.2921
30	6.05	9.2	7/14/2019	1123	3.68	0.4000	-0.3979
34	7.20	4.2	7/14/2019	1116	3.4	0.8095	-0.0918
40	10.38	1.8	7/14/2019	1028	2.07	1.1500	0.0607
42	12.25	1.8	7/14/2019	1035	3.26	1.8111	0.2579
44	14.12	1.4	7/14/2019	1044	1.07	0.7643	-0.1167
45	15.17	0.8	7/14/2019	1049	1.23	1.5375	0.1868
					Average Ratio	0.9290	-0.0800
					Antilog of Average		0.8318

TABULATION OF FIELD STRENGTH MEASUREMENT DATA
STATION WWNN - POMPANO BEACH, FLORIDA
1470 kHz, 50 kW-D, 2.5 kW-N, DA-2

207 Degrees True Radial

1979 Proof Point Number	Distance (kilometers)	1979 Proof Field Strength (mV/m)	2.5 kW, DA-N				
			Date	Time (local)	Field Strength (mV/m)	Ratio (2019/1979)	Log Ratio (2019/1979)
36	3.62	13.8	7/12/2019	1546	10.7	0.7754	-0.1105
39	4.83	3.8	7/12/2019	1536	5.53	1.4747	0.1687
40 MP	5.15	3.7	7/12/2019	1532	7.63	2.0904	0.3202
42	5.95	3.8	7/12/2019	1527	4.67	1.2453	0.0953
45	7.40	2.6	7/12/2019	1511	3.05	1.1731	0.0693
49	9.82	1.0	7/12/2019	1428	2.17	2.1919	0.3408
50	10.51	1.10	7/12/2019	1421	1.2	1.0909	0.0378
51	11.54	0.64	7/12/2019	1433	0.866	1.3531	0.1313
52	13.20	0.60	7/12/2019	1421	0.614	1.0233	0.0100
53	13.57	0.35	7/12/2019	1415	0.558	1.5943	0.2026
					Average Ratio	1.4012	0.1266
					Antilog of Average		1.3383

TABULATION OF FIELD STRENGTH MEASUREMENT DATA
STATION WWNN - POMPANO BEACH, FLORIDA
1470 kHz, 50 kW-D, 2.5 kW-N, DA-2

247 Degrees True Radial

1979 Proof Point Number	Distance (kilometers)	1979 Proof Field Strength (mV/m)	2.5 kW, DA-N Date	Time (local)	Field Strength (mV/m)	Ratio (2019/1979)	Log Ratio (2019/1979)
36	3.78	28	7/12/2019	1232	23.7	0.8464	-0.0724
39	4.51	17.5	7/12/2019	1238	17.6	1.0057	0.0025
41	5.20	15.8	7/12/2019	1308	9.96	0.6304	-0.2004
43 MP	6.12	15.2	7/12/2019	1314	9.49	0.6243	-0.2046
47	7.63	10	7/12/2019	1321	7.65	0.7650	-0.1163
49	8.45	9.6	7/12/2019	1330	6.53	0.6802	-0.1674
50	9.30	7	7/12/2019	1335	3.52	0.5029	-0.2986
51	9.62	7.4	7/12/2019	1341	3.31	0.4473	-0.3494
53	11.89	4.5	7/12/2019	1351	3.6	0.8000	-0.0969
					Average Ratio	0.7002	-0.1671
					Antilog of Average		0.6807

TABULATION OF FIELD STRENGTH MEASUREMENT DATA
STATION WWNN - POMPANO BEACH, FLORIDA
1470 kHz, 50 kW-D, 2.5 kW-N, DA-2

270 Degrees True Radial

1979 Proof Point Number	Distance (kilometers)	1979 Proof Field Strength (mV/m)	2.5 kW, DA-N				
			Date	Time (local)	Field Strength (mV/m)	Ratio (2019/1979)	Log Ratio (2019/1979)
41	3.30	39	7/12/2019	1544	30.2	0.7744	-0.1111
42 MP	3.65	32	7/12/2019	1547	21.3	0.6656	-0.1768
43	3.89	31.5	7/12/2019	1549	30.5	0.9683	-0.0140
44	4.44	26.2	7/12/2019	1555	11.6	0.4427	-0.3538
45	4.72	20.8	7/12/2019	1558	16.2	0.7788	-0.1085
46	5.23	18.5	7/12/2019	1603	16	0.8649	-0.0631
47	5.47	16.5	7/12/2019	1607	11.3	0.6848	-0.1644
48	5.63	16.8	7/12/2019	1612	13	0.7738	-0.1114
49	6.04	14.5	7/12/2019	1615	10.4	0.7172	-0.1443
50	6.31	14	7/12/2019	1619	8.1	0.5786	-0.2376
					Average Ratio	0.7249	-0.1485
					Antilog of Average		0.7104

TABULATION OF FIELD STRENGTH MEASUREMENT DATA
STATION WWNN - POMPANO BEACH, FLORIDA
1470 kHz, 50 kW-D, 2.5 kW-N, DA-2

289 Degrees True Radial

1995 Proof Point Number	Distance (kilometers)	1995 Proof Field Strength (mV/m)	50 kW, DA-D				
			Date	Time (local)	Field Strength (mV/m)	Ratio (2019/1995)	Log Ratio (2019/1995)
6	1.00	165	7/14/2019	1040	290	1.7576	0.2449
8	1.25	225	7/14/2019	1045	358	1.5911	0.2017
10	2.20	140	7/14/2019	1058	186	1.3286	0.1234
16	3.15	83	7/14/2019	1104	119	1.4337	0.1565
19	3.60	61	7/14/2019	1109	90	1.4754	0.1689
24 MP	4.78	44	7/14/2019	1113	33.2	0.7545	-0.1223
28	5.46	34.5	7/14/2019	1116	39.5	1.1449	0.0588
30	5.90	35	7/14/2019	1119	47	1.3429	0.1280
33	6.26	32	7/14/2019	1122	35	1.0938	0.0389
36	7.00	31.5	7/14/2019	1128	43.5	1.3810	0.1402
					Average Ratio	1.3303	0.1139
					Antilog of Average		1.2999

TABULATION OF FIELD STRENGTH MEASUREMENT DATA
STATION WWNN - POMPANO BEACH, FLORIDA
1470 kHz, 50 kW-D, 2.5 kW-N, DA-2

330 Degrees True Radial

1979 Proof Point Number	Distance (kilometers)	1979 Proof Field Strength (mV/m)	2.5 kW, DA-N				
			Date	Time (local)	Field Strength (mV/m)	Ratio (2019/1979)	Log Ratio (2019/1979)
39	4.10	66	7/12/2019	1528	64	0.9697	-0.0134
41	4.79	52	7/12/2019	1521	54.2	1.0423	0.0180
42	5.23	47	7/12/2019	1516	36.9	0.7851	-0.1051
44	5.94	42	7/12/2019	1510	35.7	0.8500	-0.0706
45	6.29	38	7/12/2019	1504	38.7	1.0184	0.0079
47 MP	7.31	30	7/12/2019	1447	21.2	0.7067	-0.1508
49	7.98	24.5	7/12/2019	1442	18.8	0.7673	-0.1150
50	8.85	23.2	7/12/2019	1430	14.2	0.6121	-0.2132
52	9.78	17.2	7/12/2019	1423	12.9	0.7500	-0.1249
55	11.17	12.5	7/12/2019	1414	8.7	0.6960	-0.1574
					Average Ratio	0.8198	-0.0924
					Antilog of Average		0.8083

SUMMARY OF DATA PERTINENT TO
MONITORING POINT MAXIMA
STATION WWNN - POMPANO BEACH, FLORIDA
1470 kHz – 50 kW-D, 2.5 kW-N, U, DA-2

Daytime Monitored Radials

Radial (deg.T)	Point Number	Distance (kilometers)	Measured Field Strength (mV/m)	Measured IDF (mV/m)*	Authorized Standard Pattern Field (mV/m)*	Suggested Maximum Field Strength (mV/m)
188.5	20	3.43	9.42	86	118	14.3**
289	24	4.78	33.2	450	613	77.8**

Nighttime Monitored Radials

Radial (deg.T)	Point Number	Distance (kilometers)	Measured Field Strength (mV/m)	Measured IDF (mV/m)*	Authorized Standard Pattern Field (mV/m)*	Suggested Maximum Field Strength (mV/m)
3	42	4.35	6.0	28.3	83.8	13.5**
207	40	5.15	7.63	64	96.6	11.5
247	43	6.12	9.49	97.5	211.7	20.0**
270	42	3.65	21.3	127	195.7	35.0**
330	47	7.31	21.2	299	403.8	32.8**

*mV/m at one kilometer
**Presently licensed value

Figure 4